

Creating and using Arrays - 0

What will be the result of compiling and executing Test class?

```
public class Test {  
    public static void main(String[] args) {  
        double [] arr = new int[2]; //Line 3  
        System.out.println(arr[0]); //Line 4  
    }  
}
```

A - Line 4 causes runtime exception

B - Line 3 causes compilation error

C - 0

D - 0.0

Creating and using Arrays - 1

Given code:

```
public class Test {  
    public static void main(String[] args) {  
        /*INSERT*/  
        arr[1] = 5;  
        arr[2] = 10;  
        System.out.println "[" + arr[1] + ", " + arr[2] + " ]";  
        //Line n1  
    }  
}
```

And below statements:

1. short arr [] = new short[2];
2. byte [] arr = new byte[10];
3. short [] arr; arr = new short[3];
4. short [2] arr;
5. short [3] arr;
6. int [] arr = new int[]{100, 100};
7. int [] arr = new int[]{0, 0, 0, 0};
8. short [] arr = {};
9. short [] arr = new short[2]{5, 10};

How many above statements can be used to replace */INSERT/*, such that on execution, code will print [5, 10] on to the console?

- A - Only one option
- B - None of the given options
- C - Only three options
- D - Only four options
- E - More than four options
- F - Only two options

Creating and using Arrays - 2

Which of the following is not a valid array declaration?

A - `int arr4[][] = new int[][8];`

B - `int [] arr1 = new int[8];`

C - `int [][] arr2 = new int[8][8];`

D - `int [] arr3 [] = new int[8][];`

Creating and using Arrays - 3

Given code:

```
public class Test {  
    public static void main(String[] args) {  
        String [] arr = {"I", "N", "S", "E", "R", "T"};  
        for(/*INSERT*/) {  
            if (n % 2 == 0) {  
                continue;  
            }  
            System.out.print(arr[n]); //Line n1  
        }  
    }  
}
```

And below options:

1. int n = 0; n < arr.length; n += 1
2. int n = 0; n <= arr.length; n += 1
3. int n = 1; n < arr.length; n += 2
4. int n = 1; n <= arr.length; n += 2

How many above options can be used to replace /*INSERT*/, such that on execution, code will print NET on to the console?

- A - Only three options
- B - Only one option
- C - All four options
- D - Only two options
- E - None of the other options

Creating and using Arrays - 4

Which of the following array declarations and initializations is NOT legal?

A - `byte [] val = new byte[10];`

B - `char [] arri [] = new char[5][];`

C - `int [] arr2 = {1, 2, 3, 4, 5};`

D - `int [] arr3 = new int[3]{10, 20, 30};`

Creating and using Arrays - 5

What will be the result of compiling and executing Test class?

```
public class Test {  
    public static void main(String[] args) {  
        String [] arr = new String[7];  
        System.out.println(arr);  
    }  
}
```

- A - NullPointerException
- B - Some String containing @ symbol
- C - Compilation Error
- D - null

Creating and using Arrays - 6

What is the output if below program is run with the command line:

java Test

```
public class Test {  
    public static void main(String[] args) {  
        System.out.println(args.length);  
    }  
}
```

A - NullPointerException

B - 1

C - 0

D - ArrayIndexOutOfBoundsException

Creating and using Arrays - 7

What will be the result of compiling and executing Test class?

```
public class Test {  
    public static void main(String[] args) {  
        String[][] arr = { { "7", "6", "5" }, { "4", "3" }, { "2",  
            "1" } };  
        for (int i = 0; i < arr.length; i++) { //Line n1  
            for (int j = 0; j < arr[i].length; j++) { //Line n2  
                switch (arr[i][j]) { //Line n3  
                    case "2":  
                    case "4":  
                    case "6":  
                        break; //Line n4  
                    default:  
                        continue; //Line n5  
                }  
                System.out.print(arr[i][j]); //Line n6  
            }  
        }  
    }  
}
```

A - 7654321

B - 753

C - 7

D - 6

E - 64

F - 75

G - 7531

H - 642

Creating and using Arrays - 8

Consider 2 files:

```
//Counter.java
package com.training.oca;

public class Counter {
    public int count = 0;

    public Counter(int start) {
        count = start;
    }

    public int getCount() {
        return count;
    }

    public void increase(int val) {
        count = count + val;
    }

    public String toString() {
        return this.count + "";
    }
}

//Test.java
package com.training.oca.test;

import java.util.Arrays;

import com.training.oca.Counter;

public class Test {
    public static void main(String[] args) {
        Counter[] arr = new Counter[] { new Counter(-1000), new
        Counter(539), new Counter(0) };

        /* INSERT */

        System.out.println(Arrays.toString(arr));
    }
}
```

Currently on executing Test class, output is: [-1000, 539, 0].

And below blocks:

1.

```
for(Counter ctr : arr) {
    ctr.count = 100;
```

}

2.

```
for (Counter ctr : arr) {  
    int x = ctr.getCount();  
    x = 100;  
}
```

3.

```
for (Counter ctr : arr) {  
    ctr.getCount() = 100;  
}
```

4.

```
for(Counter ctr : arr) {  
    ctr.increase(100 - ctr.count);  
}
```

5.

```
for (Counter ctr : arr) {  
    ctr.increase(100 - ctr.getCount());  
}
```

6.

```
for(Counter ctr : arr) {  
    ctr.increase(-ctr.getCount() + 100);  
}
```

7.

```
for(Counter ctr : arr) {  
    ctr.increase(-ctr.count + 100);  
}
```

How many blocks can replace /*INSERT*/ such that output is: [100, 100, 100]?

A - Only Three blocks

B - All Seven blocks

C - Only One block

D - Only Six blocks

E - Only Five blocks

F - Only Two blocks

G - Only Four blocks

Creating and using Arrays - 9

What will be the result of compiling and executing Test class?

```
public class Test {  
    public static void main(String[] args) {  
        int [] arr1 = {5, 10, 15};  
        int [] arr2 = {'A', 'B'};  
        arr1 = arr2;  
        System.out.println(arr1.length + arr2.length);  
    }  
}
```

A - Compilation error

B - 4

C - 5

D - 6

E - An exception is thrown at runtime

Creating and using Arrays - 10

Which of the following is true for code below?

```
public class Test {  
    public static void main(String[] args) {  
        byte [] arr = new byte[0];  
        System.out.println(arr[0]);  
    }  
}
```

- A - NullPointerException
- B - 0
- C - Compilation error
- D - ArrayIndexOutOfBoundsException

Creating and using Arrays - 11

What will be the result of compiling and executing Test class?

```
public class Test {  
    public static void main(String[] args) {  
        String [] arr = new String[1];  
        System.out.println(arr[0].isEmpty());  
    }  
}
```

- A - false
- B - ArrayIndexOutOfBoundsException is thrown at runtime
- C - true
- D - NullPointerException is thrown at runtime

Creating and using Arrays - 12

What will be the result of compiling and executing Test class?

```
public class Test {  
    public static void main(String[] args) {  
        String msg = "Hello";  
        boolean [] flag = new boolean[1];  
        if(flag[0]) {  
            msg = "Welcome";  
        }  
        System.out.println(msg);  
    }  
}
```

A - ArrayIndexOutOfBoundsException

B - Hello

C - Welcome

D - NullPointerException

Creating and using Arrays - 13

Given code:

```
public class Test {  
    public static void main(String[] args) {  
        int [] arr = {1, 2, 3, 4, 5};  
        int x = 0;  
        for(/*INSERT*/) {  
            x += arr[n];  
        }  
        System.out.println(x);  
    }  
}
```

Which 3 options, if used to replace `/*INSERT*/`, on execution will print 9 on to the console?

A -

```
int n = 1; n < arr.length; n += 2
```

B -

```
int n = 0; n < arr.length; n += 2
```

C -

```
int n = 0; n < arr.length; n++
```

D -

```
int n = 3; n < arr.length; n++
```

E -

```
int n = 1; n < arr.length - 1; n++
```

Creating and using Arrays - 14

What will be the result of compiling and executing Test class?

```
public class Test {  
    public static void main(String[] args) {  
        int [] arr1 = {1, 2, 3};  
        char [] arr2 = {'A', 'B'}; //ASCII code of 'A' is 65, 'B' is  
        66  
        arr1 = arr2;  
        for(int i = 0; i < arr1.length; i++) {  
            System.out.print(arr1[i] + " ");  
        }  
    }  
}
```

A - Compilation error

B - A B

C - 1 2 3

D - 65 66

Creating and using Arrays - 15

What will be the result of compiling and executing Test class?

```
public class Test {  
    public static void main(String[] args) {  
        String [] arr = {"A", "B", "C", "D"};  
        arr[0] = arr[1];  
        arr[1] = "E";  
        for(String s : arr) {  
            System.out.print(s + " ");  
        }  
    }  
}
```

A - E E C D

B - Compilation error

C - B E C D

D - An exception is thrown at runtime

E - A E C D

Creating and using Arrays - 16

What will be the result of compiling and executing Test class?

```
public class Test {  
    public static void main(String[] args) {  
        char [][] arr = {  
            {'A', 'B', 'C'},  
            {'D', 'E', 'F'},  
            {'G', 'H', 'I'}  
        };  
  
        for(int i = 0; i < arr.length; i++) {  
            for(int j = 0; j < arr[i].length; j++) {  
                System.out.print(arr[i][j]);  
            }  
            System.out.println();  
        }  
    }  
}
```

A -

ABC
DEF
GHI

B -

CCC
FFF
III

C -

AAA
DDD
GGG

D -

BBB
EEE
HHH

Creating and using Arrays - 17

What will be the result of compiling and executing Test class?

```
public class Test {  
    public static void main(String[] args) {  
        int [] arr1 = {1, 2, 3};  
        char [] arr2 = {'A', 'B'}; //ASCII code of 'A' is 65, 'B' is  
        66  
        arr1 = arr2;  
        for(int i = 0; i < arr1.length; i++) {  
            System.out.print(arr1[i] + " ");  
        }  
    }  
}
```

A - Compilation error

B - A B

C - 1 2 3

D - 65 66

Creating and using Arrays - 18

What will be the result of compiling and executing Test class?

```
public class Test {  
    public static void main(String[] args) {  
        String [] arr = {"A", "B", "C", "D"};  
        arr[0] = arr[1];  
        arr[1] = "E";  
        for(String s : arr) {  
            System.out.print(s + " ");  
        }  
    }  
}
```

A - E E C D

B - Compilation error

C - B E C D

D - An exception is thrown at runtime

E - A E C D

Creating and using Arrays - 19

What will be the result of compiling and executing Test class?

```
public class Test {  
    public static void main(String[] args) {  
        char [][] arr = {  
            {'A', 'B', 'C'},  
            {'D', 'E', 'F'},  
            {'G', 'H', 'I'}  
        };  
  
        for(int i = 0; i < arr.length; i++) {  
            for(int j = 0; j < arr[i].length; j++) {  
                System.out.print(arr[i][j]);  
            }  
            System.out.println();  
        }  
    }  
}
```

A -

ABC
DEF
GHI

B -

CCC
FFF
III

C -

AAA
DDD
GGG

D -

BBB
EEE
HHH

Creating and using Arrays - 20

Consider below code of Test.java file:

```
public class Test {  
    public static void main(String[] args) {  
        String [] arr = new String[7];  
        System.out.println(arr);  
    }  
}
```

What will be the result of compiling and executing Test class?

- A - Compilation Error
- B - It prints some text containing @ symbol
- C - It prints null
- D - An exception is thrown at runtime

Creating and using Arrays - 21

Consider below code of Test.java file:

```
public class Test {  
    public static void main(String[] args) {  
        int[] [] arr = new int[x][y]; //Line n1  
        arr[1][4] = 100;  
        arr[6][6] = 200;  
        arr[3][6] = 300;  
    }  
}
```

And below combination of x and y values:

1. x = 6, y = 6
2. x = 2, y = 5
3. x = 4, y = 7
4. x = 7, y = 7
5. x = 8, y = 8
6. x = 0, y = 0
7. x = -1, y = -1

How many of above x,y pair(s) can replace x and y at Line n1 such that Test.java file compiles successfully?

- A - All 7 pairs
- B - 4 pairs
- C - 3 pairs
- D - 5 pairs
- E - 1 pair
- F - 2 pairs

Creating and using Arrays - 22

Consider below code of Test.java file:

```
public class Test {  
    public static void main(String[] args) {  
        String[] arr = { "L", "I", "V", "E" }; //Line n1  
        int i = -2;  
  
        if (i++ == -1) { //Line n2  
            arr[--i] = "F"; //Line n3  
        } else if (--i == -2) { //Line n4  
            arr[-++i] = "O"; //Line n5  
        }  
  
        for(String s : arr) {  
            System.out.print(s);  
        }  
    }  
}
```

What will be the result of compiling and executing Test class?

- A - An exception is thrown at runtime
- B - LOVE
- C - LIFE
- D - LIVE
- E - LIVO
- F - LIOE
- G - Compilation error

Creating and using Arrays - 23

Consider below code of Test.java file:

```
public class Test {  
    public static void main(String[] args) {  
        int var = 3;  
        String [][] arr = new String[--var][var++]; //Line n1  
        arr[1][1] = "X"; //Line n2  
        arr[1][2] = "Y"; //Line n3  
        for(String [] arr1 : arr) {  
            for(String s : arr1) {  
                if(s != null)  
                    System.out.print(s);  
            }  
        }  
    }  
}
```

What will be the result of compiling and executing Test class?

- A - It prints XY on to the console and program terminates abruptly
- B - It prints XY on to the console and program terminates successfully
- C - It causes compilation error at multiple statements
- D - It throws an exception at runtime
- E - It causes compilation error at single statement

Creating and using Arrays - 24

Consider below code of Test.java file:

```
public class Test {  
    public static void main(String[] args) {  
        String arr1 [], arr2, arr3 = null; //Line n1  
        arr1 = new String[2];  
        arr1[0] = "A";  
        arr1[1] = "B";  
        arr2 = arr3 = arr1; //Line n2  
        log(arr2); //Line n3  
    }  
  
    private static void log(String... vals) {  
        for(String s : vals)  
            System.out.print(s);  
    }  
}
```

What will be the result of compiling and executing Test class?

- A - It executes successfully and prints A on to the console
- B - Line n1 causes compilation error
- C - It executes successfully and prints AB on to the console
- D - It executes successfully and prints BA on to the console
- E - It executes successfully and prints B on to the console
- F - Line n2 causes compilation error
- G - Line n3 causes compilation error

Creating and using Arrays - 25

Consider below code of Test.java file:

```
public class Test {  
    public static void main(String[] args) {  
        int [] arr = {10, 20, 30}; //Line n1  
        int i = 0;  
        arr[i++] = arr[++i] = 40; //Line n2  
        for(int x : arr)  
            System.out.println(x);  
    }  
}
```

What will be the result of compiling and executing Test class?

- A - 10 40 30
- B - Compilation error at Line n2
- C - 40 20 40
- D - 10 20 30
- E - 10 40 40
- F - 40 40 30
- G - An exception is thrown by Line n2